Rule DAS225: APPLICATIONS CONTRIBUTING TO RPS DELAY

Finding: CPExpert identifies the applications (other than the "loved one" workload) contributing to missed RPS reconnect delays.

Impact: This information can be useful when deciding on a course of action to correct the missed RPS reconnect problems.

Logic flow: The following rules cause this rule to be invoked:

DAS200: Volume with the worst overall performance
DAS220: Missed RPS reconnect was major cause of I/O delay

Discussion: If Rule DAS220 is produced, CPExpert examines the SMF Type 30(Interval) information to select all applications (other than the "loved one" workload) which reference the volume. An application contributes to path utilization (and thus, contributes to missed RPS reconnect) mostly based upon the connect time of I/O operations to the device.

CPExpert lists the applications accessing the volume with the worst performance for the "loved one" workload, during the entire measurement period being analyzed. The list is ordered descendingly by the average percent use of paths, so you can identify the applications which probably had the most impact on the volume.

As described in Section 5, the SMF Type 30(Interval) information is not synchronized with the SMF Type 70(series) information. Consequently, the identification of applications may not correctly identify the applications with the most I/O operations to the volume.

However, if the analysis produces the same results after analyzing more than one day's measurement data, you can be more comfortable that the applications are correctly identified.

Suggestion: In many cases, once the applications are identified, either applications personnel or systems personnel will verify whether the particular applications are responsible for the majority of the I/O operations to the particular volume.

You should become comfortable that the applications presented are responsible for the utilization of the paths during the period when missed RPS reconnect delayed the "loved one" workload. You can then take action to (1) reschedule the applications to minimize contention, (2)

examine the files referenced by the applications, or (3) change the way in which the applications access their files.

